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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/123,633 07/28/98 MESS

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EXAMINER

NGUYEN, V

ART UNIT

PAPER NUMBER

2858

DATE MAILED:

06/15/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/123,633	Applicant(s) MESS, LEONARD E.	
	Examiner VINH P NGUYEN	Art Unit 2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,6-15 and 39-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6-15 and 39-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- | | |
|---|--|
| 15) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 17) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>14x10</u> | 20) <input type="checkbox"/> Other: _____ |

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 45-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lockwood et al (Pat # 4,697,143).

As to claim 45, Lockwood et al disclose a wafer probe having a substrate (33) with a uniform thickness, an electrical conductor (29) on the planar surface of the substrate (33) with one protrusion end ((37) for contacting a semiconductor and a terminal end for connecting to an electrical apparatus (a test equipment). It would have been obvious for one of ordinary skill in the art to consider that the combination of the substrate and the conductor (29) would be qualified as "an interposer" since it serves the same purpose as the interposer in the instant application. Lockwood et al do not mention about a specific groups of material for the substrate as recited in claims 46-48. However, the material for the substrate (33) such as "Nitride", "nonmetallic Nitride", "Carbide" or "nonmetallic carbide" would have been a well-known material and also an alternative material. As to claim 8, the substrate of Lockwood et al has an insulating layer (31).

3. Claims 1-2,4,6-15 and 39-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lim et al (Pat # 5,530,376).


As to claims 1,4,10,13-15, and 45, Lim et al disclose a reusable carrier for burn-in testing on non packaged die as shown in figure 1B having a substrate (12) with a uniform thickness and having a planar surface, a plurality of electrical conductors (27) on the planar surface of the insulative substrate (12) with their receiving ends (near to a well "15") connected to the semiconductor device (21) and their terminal ends (opposite ends of the conductor (27) for connecting to a test equipment. It would have been obvious for one of ordinary skill in the art to consider that the carrier of Lim et al is inserted into a test equipment and this test equipment would support and electrically coupling to that carrier. Lim et al do not mention about a specific groups of material for the substrate as recited in claims 2,6-7,9,11-12,39-41 and 46-48. However, the material for the substrate of Lim et al such as glass (alumina) "Nitride", "nonmetallic Nitride", "Carbide" or "nonmetallic carbide" would have been a well-known material and also alternative materials. As to claim 8, the substrate Lim et al has an insulating layer between the terminal ends and the receiving ends.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Luthi et al (pat # 4,329,642) disclose a carrier and test socket for leadless integrated circuit.

Application/Control Number: 09/123,633
Art Unit: 2858

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINH P. NGUYEN whose telephone number is (703) 305-4914. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4900.


VINH P. NGUYEN
PRIMARY EXAMINER
ART UNIT 2858
06/14/2001